in the vertically polarized antenna, along an essentially straight line, which provides a low degree of cross polarization.

IN THE CLAIMS

Please substitute the following amended claim(s) for corresponding claim(s) previously presented. A copy of the amended claim(s) showing current revisions is attached.

1. (Amended) Distribution network for electromagnetic signals for use in an antenna arrangement in the microwave range, the distribution network comprising:

at least first and second waveguide branches comprised of respective grooves defined in a plate of conductive material, in which branches the electromagnetic signals propagate in different directions with respect to one another so that the signals in the first branch propagate in a first direction and signals in the second branch propagate in a second direction different from the first direction, and

wherein said first and second waveguide branches overlap one another at a point in the distribution network, said first and second waveguide branches each having at least one through-going aperture in the part of the branch which

overlaps the other branch, said through-going apertures extending through the plate and each aperture being arranged essentially at a right angle with respect to a main direction of extent of the corresponding branch.

2. (Amended) Distribution network according to Claim 1, in which the first and second waveguide branches in the distribution network which overlap one another are neighbouring branches.

3. (Amended) Distribution network according to claim 1, in which at least one aperture in the each of the first and second waveguide branches is included in a group of apertures which are arranged in an essentially straight line.

4. (Amended) Distribution network according to claim 3, in which a number of the apertures in the group are for the same polarization.

5. (Unamended) Distribution network according to Claim 4, in which the apertures in the group are intended for horizontal polarization.

6. (Amended) Distribution network according to Claim 5, in which the apertures in the group are situated at the end of the respective branch in the distribution network.

7. (Unamended) Distribution network according to Claim 4, in which the apertures in the group are intended for vertical polarization.

8. (Unamended) Distribution network according to Claim 7, in which the apertures in the group are situated at a distance of ¾ λ_g from the end point of their respective branch, where λ_g is the wavelength of the electromagnetic signal in the waveguide.

9. (Unamended) Distribution network according to Claim 8, in which the apertures are constituted of apertures in a longitudinal wall of the waveguide.

10. (Amended) Distribution network according to claim 1, in which the apertures comprise slots.

11. (Unamended) Distribution network according to claim 1, in which the waveguides comprise tracks in a plate of conductive material.

12. (Amended) Antenna arrangement comprising a distribution network for electromagnetic signals, the antenna arrangement comprising:

at least first and second waveguide branches comprised of respective grooves defined in a plate of conductive material, in which branches the electromagnetic signals propagate in different directions with respect to one another so that the signals in the first branch propagate in a first direction and signals in the second branch propagate in a second direction different from the first direction, and

wherein said first and second waveguide branches overlap one another at a point in the distribution network, said first and second waveguide branches each having at least one aperture in the part of the branch which overlaps the other branch, said apertures extending through the plate and each aperture being arranged essentially at a right angle with respect to a main direction of extent of the corresponding branch.

13. (Amended) Antenna arrangement according to claim 12, in which the distribution network is constructed in two layers with an intermediate aperture layer.